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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,794	12/17/2001	Jean Yves Le Roux	B0250	5795
466	7590	03/18/2004	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			CHEN, ALAN S	
		ART UNIT	PAPER NUMBER	
		2182	6	
DATE MAILED: 03/18/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/009,794	LE ROUX ET AL.
	<b>Examiner</b>	Art Unit
	Alan S Chen	2182

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 30 January 2004.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-3 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 17 December 2001 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: section headings are missing in the specification.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 USC 103(a) as being unpatentable over No.

US005619250A to McClellan et al. (hereafter McClellan) in view of No. US005583562A to Birch et al. (hereafter Birch).

McClellan discloses a device for automatically manages the flow of digital data from a host (Fig. 1) constituted by a decoder (Column 1, lines 60 thru column 2, lines 11) for the reception of digital television (Column 2, lines 13-30) between a common interface (e.g., the BUS, Fig. 1, element 20 and its associated modules, any of the 7 functional modules in Fig. 1), of the type using, in a host (Fig. 1, is the host computer/set top box), a demultiplexer (Fig. 1, element 56), a pilot for the common interface (the element that manages the flow of digital data, the CPU module and the Network module), a processor (Fig. 1, element 12), at least two connectors (Fig. 1, element 52, PCMCIA interface and Fig. 1, element 54, the RS-232 interface) that inherently has two modules characterized by the fact that it comprises automatic recognition

Art Unit: 2182

means of the modules once they are inserted in each connector (PCMCIA and serial connectors have automatic recognition, see PCMCIA and USB specifications. USB is equivalent to RS-232, (though they do not have the exact same connectors types/communication speeds) in the sense that RS-232 is being replaced with USB since the 1990s and is the de facto serial connection) and means for controlling switching to interchange the movements of the flow within the host and the modules (done by OS and CPU module).

McClellan does not disclose expressly the device having a demodulator, though one can argue that this is inherent in the invention due to the fact that the digital signal coming into the set top box is a radio frequency signal, whether it be by satellite or coaxial cable, it requires a demodulator unit to decipher the message in accordance to the hardware.

Birch discloses a device (Fig. 5 and 6) for automatically managing the flow of digital data from a host, constituted by a decoder (Fig. 5), a demodulator (Fig. 25, element 580), a demultiplexer (Fig. 6a, element 612), a processor (Fig. 6a, elements 618, 620, 622 or 630) and an ASIC (Fig. 584).

McClellan and Birch are analogous art because they are from the same field of endeavor in digital television and controlling/reception of digital information.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the demodulator of Birch to modify McClellan's invention.

The suggestion/motivation for doing so would have been the digital signal coming into the set top box is a radio frequency signal, whether it be by satellite or coaxial cable, it requires a demodulator unit to decipher the message in accordance to the hardware.

Therefore, it would have been obvious to combine McClellan with Birch for the benefit of being able to decipher the radio frequency digital signal by a demodulator.

4. Claim 2 is rejected under 35 USC 103(a) as being unpatentable over McClellan in view of Birch in further view of Application-Specific Integrated Circuits by Micheal John Sebastian Smith (hereafter Smith).

McClellan combined with Birch discloses claim 1. In particular, Birch discloses an ASIC used to manage the flow of digital data (Fig. 5, element 584) that sits between the demodulator, the processor and demultiplexer.

McClellan does not disclose expressly using an ASIC to automatically recognize different modules.

Smith teaches that an ASIC can act as a microprocessor, e.g., in the context of McClellan, recognize when peripheral modules are inserted (page 4).

Smith and McClellan combined with Birch are analogous art because they are from similar problem solving area and the and name of field and area that requires the use of ICs and computer building blocks in order to create the functionality of the whole computer device.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use ASICs in the automatic recognition feature of the set top box.

The suggestion/motivation for doing so would have been to provide better performance, lower cost, compact size, reduced power, quiet operation, reduced number of parts, easier assembly, and improved reliability.

Therefore, it would have been obvious to combine McClellan combined with Birch with Smith for the benefit of better performance (due to ASIC specificity to the particular application)

Art Unit: 2182

at a lower cost, compact size, reduced power, quiet operation, reduced number of parts, easier assembly, and improved reliability.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to multiple module interface and digital television:

U.S. Pat. No. US005903701A to Lydecker et al.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S Chen whose telephone number is 703-605-0708. The examiner can normally be reached on M-F 8:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC  
3/15/2004



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